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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,329

05/02/2005

Martin P McCormick

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5368

25279

7590

04/28/2009

GRACO MINNESOTA INC
PO BOX 1441
MINNEAPOLIS, MN 55440

EXAMINER

BAYOU, AMENE SETEGNE

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

04/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,329	Applicant(s) MCCORMICK ET AL.	
	Examiner AMENE S. BAYOU	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05/02/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/05/09 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Senf (US patent number 4789100) in view of Chine et al (US patent number 6161723).

4. In re claim 1, Senf discloses a multiple fluid pumping system including:

- A proportioner in figure 4, for dispensing plural component materials (18,20), proportioner comprising: A variable speed electric motor (70) having a shaft and first and second ends ; shaft extending from each ends (as clearly shown in figure 4 the motor and gear box system constitute a variable speed system and two shafts extend in both direction leading to pumps 54 and 64) ; a first reciprocating pump (54) attached to first motor end , pump (54) being connected to a source of a first material (18) and having an output (60) which

Art Unit: 3746

has a first pressure; a second reciprocating pump (64) attached to second motor end , pump (64) being connected to a source of a second material (20) and having an output (66) which has a second pressure, pumps (54,64) simultaneously pumping materials to an applicator (50) without passing through another pump ,first and second pumps (54,64) being the only pumps between material sources (18,20) and outputs (60,66), a user-selectable pressure set point (column 4,lines 36-41). Senf however fails to disclose the following limitation which is taught by Chine et al:

- A controller (14) with provision for a user-selectable (using item 20) pressure set point (column 17,lines 30-34), controller (14) continually comparing first and second pressures and regulating the higher of pressures to set point (step 514 of figure 28) ,in figures 1, 28 and column 17,lines 31-33.

5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the proportional mixing means of Senf by including a controller with user selectable pressure set point as taught by Chine et al in order to allow precise and automated pump pressure control.

6. In re claim 2, Senf in view of Chine et al disclose the claimed invention:

Hayes discloses:

- A proportioner in figure 4,for dispensing plural component materials (18,20), proportioner comprising: A variable speed electric motor (70) having a shaft and first and second ends ; shaft extending from each ends (as clearly shown in figure 4 the motor and gear box system constitute a variable speed system and

Art Unit: 3746

two shafts extend in both direction leading to pumps 54 and 64) ;a first reciprocating pump (54) attached to first motor end , pump (54) being connected to a source of a first material (18) and having an output (60) which has a first positive pressure; a second reciprocating pump (64) attached to second motor end , pump (64) being connected to a source of a second material (20) and having an output (66) which has a second positive pressure, pumps (54,64) simultaneously pumping materials to an applicator (50) without passing through another pump ,first and second pumps (54,64) being the only pumps between material sources (18,20) and outputs (60,66), a user-selectable pressure set point (column 4,lines 36-41).

Chine et al '723 disclose:

- Pumps (34,36) simultaneously pumping materials to an applicator (53) without passing through another pump ,in figure 1 ,a controller (14) with provision for a user-selectable (using item 20) pressure set point (column 17,lines 30-34), controller (14) continually comparing first and second pressures and providing an alarm in the event one of pressures falls to a predetermined percentage of set point, in figures 1, 28 and column 17,lines 31-33 and column 18 lines 5-7.

Alternate Claim Rejections - 35 USC § 103

7. Claims 1 and 2 are rejected under 35 U.S.C 103(a) as being unpatentable over Hayes (US patent number 4547128) in view of Flemming et al (US patent number 4878601) further in view of Chine et al (US patent number 6161723).

8. In re claim 1, Hayes discloses a proportional mixing means including:

Art Unit: 3746

- A proportioner (11) in figure 1, for dispensing plural component materials, proportioner (11) comprising: A variable speed electric motor (41) having a shaft (43 and 45) and first and second ends ; shaft (43 and 45)extending from each of ends ;a first pump (21) attached to first motor end (using shaft 43), pump being connected to a source of a first material (13) and having an output (39) which has a first pressure; a second pump (23) attached to second motor end (using shaft 45) , pump being connected to a source of a second material (15) and having an output (49) which has a second pressure, first and second pumps (21 and 23) being the only pumps between material sources and outputs. But Hayes fails to disclose the following limitation which is taught by Flemming et al:

- Reciprocating piston pump (90), in figure 5.

However Hayes in view of Flemming et al fails to disclose the following limitation which is taught by Chine et al:

- Pumps (34,36) simultaneously pumping materials to an applicator (53) without passing through another pump ,in figure 1 ,a controller (14) with provision for a user-selectable (using item 20) pressure set point (column 17,lines 30-34), controller (14) continually comparing first and second pressures and regulating the higher of pressures to set point (step 514 of figure 28) ,in figures 1, 28 and column 17,lines 31-33.

9. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the proportional mixing means of Hayes by

Art Unit: 3746

selecting a reciprocating pump as taught by Flemming et al for low cost operation (by the design choice of piston pump). And It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the modified proportional mixing means of Hayes and Flemming et al by pumping materials simultaneously as taught by Chine et al in order to efficiently control the fluid mixing operation and increase the efficiency (because of reduced pumping time). Also using a controller and user selectable pressure set point as taught by Chine et al will allow precise pump pressure control.

10. In re claim 2, Hayes in view of Flemming et al further in view of Chine et al discloses the claimed invention:

Hayes discloses:

- A proportioner (11) in figure 1, for dispensing plural component materials, proportioner (11) comprising: A variable speed electric motor (41) having a shaft (43 and 45) and first and second ends ; shaft (43 and 45)extending from each of ends ;a first pump (21) attached to first motor end (using shaft 43), pump being connected to a source of a first material (13) and having an output (39) which has a first positive pressure; a second pump (23) attached to second motor end (using shaft 45) , pump being connected to a source of a second material (15) and having an output (49) which has a second positive pressure.

Flemming et al '601 disclose:

- Reciprocating piston pump (90), in figure 5.

Art Unit: 3746

Chine et al '723 disclose:

- Pumps (34,36) simultaneously pumping materials to an applicator (53) without passing through another pump ,in figure 1 ,a controller (14) with provision for a user-selectable (using item 20) pressure set point (column 17,lines 30-34), controller (14) continually comparing first and second pressures and providing an alarm in the event one of pressures falls to a predetermined percentage of set point, in figures 1, 28 and column 17,lines 31-33 and column 18 lines 5-7.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amene S. Bayou whose telephone number is 571-270-3214. The examiner can normally be reached on Monday-Thursday,9:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Application/Control Number: 10/533,329

Page 8

Art Unit: 3746

Customer Service Representative or access to the automated information system, call
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746